

# PATENT COOPERATION TREATY

## PCT

### NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C. 20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 27 April 2000 (27.04.00)	
<b>International application No.</b> PCT/US99/19688	<b>Applicant's or agent's file reference</b> RCA89175
<b>International filing date (day/month/year)</b> 26 August 1999 (26.08.99)	<b>Priority date (day/month/year)</b> 26 August 1998 (26.08.98)
<b>Applicant</b> VIRAG, David, Emery et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
24 March 2000 (24.03.00)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b>  R. Forax  Telephone No.: (41-22) 338.83.38
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**PCT**

**NOTIFICATION OF THE RECORDING  
OF A CHANGE**

(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

TRIPOLI, Joseph, S.  
Thomson Multimedia Licensing  
Incorporated  
P.O. Box 5312  
Princeton, NJ 08543  
ETATS-UNIS D'AMERIQUE

<b>Date of mailing (day/month/year)</b> 17 August 2000 (17.08.00)	
<b>Applicant's or agent's file reference</b> RCA89175	<b>IMPORTANT NOTIFICATION</b>
<b>International application No.</b> PCT/US99/19688	<b>International filing date (day/month/year)</b> 26 August 1999 (26.08.99)

<b>1. The following indications appeared on record concerning:</b> <input checked="" type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative		
<b>Name and Address</b> THOMSON CONSUMER ELECTRONICS, INC. 10330 North Meridian Street Indianapolis, IN 46290-1024 United States of America	<b>State of Nationality</b>	<b>State of Residence</b>
	<b>Telephone No.</b>	
	<b>Facsimile No.</b>	
	<b>Teleprinter No.</b>	
<b>2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:</b> <input checked="" type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
<b>Name and Address</b> THOMSON LICENSING S.A. 46, Quai A. Le Galo 92648 Boulogne Cedex France	<b>State of Nationality</b>	<b>State of Residence</b>
	<b>Telephone No.</b>	
	<b>Facsimile No.</b>	
	<b>Teleprinter No.</b>	
<b>3. Further observations, if necessary:</b>  		
<b>4. A copy of this notification has been sent to:</b> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> the receiving Office  <input type="checkbox"/> the International Searching Authority  <input checked="" type="checkbox"/> the International Preliminary Examining Authority                         </div> <div> <input type="checkbox"/> the designated Offices concerned  <input checked="" type="checkbox"/> the elected Offices concerned  <input type="checkbox"/> other:                         </div> </div>		

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b>  Simin Baharlou  Telephone No.: (41-22) 338.83.38
---	---

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IS&S

PCT

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

TRIPOLI, Joseph; SHONEMAN, David  
THOMSON MULTIMEDIA LICENSING INC.  
P.O. Box 5312  
Princeton, New Jersey 08543-5312  
ETATS-UNIS D'AMERIQUE

H DTS

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing  
(day/month/year) 11.05.2000

Applicant's or agent's file reference  
RCA89175

IMPORTANT NOTIFICATION

International application No.  
PCT/US99/19688

International filing date (day/month/year)  
26/08/1999

Priority date (day/month/year)  
26/08/1998

Applicant  
THOMSON CONSUMER ELECTRONICS, INC. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

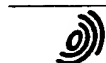
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer

Comudet-Henschel, V

Tel. +49 89 2399-7371



# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>RCA89175</b>	<b>FOR FURTHER ACTION</b>		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. <b>PCT/US99/19688</b>	International filing date ( <i>day/month/year</i> ) <b>26/08/1999</b>	Priority date ( <i>day/month/year</i> ) <b>26/08/1998</b>	
International Patent Classification (IPC) or national classification and IPC <b>H04N5/44</b>			
Applicant <b>THOMSON CONSUMER ELECTRONICS, INC. et al.</b>			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  <b>24/03/2000</b>	Date of completion of this report  <b>11.05.2000</b>
Name and mailing address of the international preliminary examining authority:  <b>European Patent Office</b> <b>D-80298 Munich</b> <b>Tel. +49 89 2399 - 0 Tx: 523656 epmu d</b> <b>Fax: +49 89 2399 - 4465</b>	Authorized officer  <b>Luckett, P</b>  Telephone No. +49 89 2399 8965 <div style="text-align: right;">  </div>

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/19688

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-15 as originally filed

**Claims, No.:**

1-13 as originally filed

**Drawings, sheets:**

1/3-3/3 as received on 22/11/1999 with letter of 22/11/1999

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/19688

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	1-13
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-13
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-13
	No:	Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**Va) re Novelty and Inventive Step**

- 1 EP-A-0 843 468 (SONY CORP) 20 May 1998 (1998-05-20) in which EPG apparatus displays information such as the status of connection of other equipment connected to the EPG apparatus on an EPG screen. A TV (21) detects the fact that a VTR (22) is connected thereto by communication through a digital signal control line (29). The TV (21) displays a character or an image indicating the fact that the VTR (22) is connected thereto on an EPG screen of a display unit (36) along with EPG data resulting from decoding by an EPG decoder (39) employed in the TV (21). While watching the EPG screen, the user is capable of selecting a broadcasted program received by a tuner (37) employed in the TV (21) or a program to be played back by the VTR (22). In addition, a video-recording reservation in the VTR (22) can be made.
- 2 US-A-4 996 597 (DUFFIELD DAVID J) 26 February 1991 (1991-02-26) cited in the application, discloses a user programmable switching arrangement. A switching system for a television receiver allows a user to specify which of several input connectors (AUX1; AUX2; AUX3) is assigned to which of several signal sources (VCR1; VCR2; CABLE). Thereafter, upon selection of a particular signal source, the system automatically selects the input connector associated with the selected signal source. However, in this disclosure there is no hint of any automatic polling of the plural inputs once the user has allocated their respective signal sources.
- 3 In contrast to this prior art, the invention as expressed in claims 1-13, provides for automatic polling of plural inputs to video processing apparatus adapted to determine upon which one of the plurality of inputs a particular peripheral device is connected. This element of automatic discriminatory polling of plural inputs in the current technical context, is not disclosed, suggested or rendered obvious by the available prior art of file.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US99/19688

**Vb) re Industrial Applicability**

- 4 The claimed invention finds manifold application in the technical field of video processing apparatus control, more particularly in situations where multi media installations are supplied with plural data inputs of differing formats and systems. It thus finds widespread applicability in many branches of industrial endeavour.





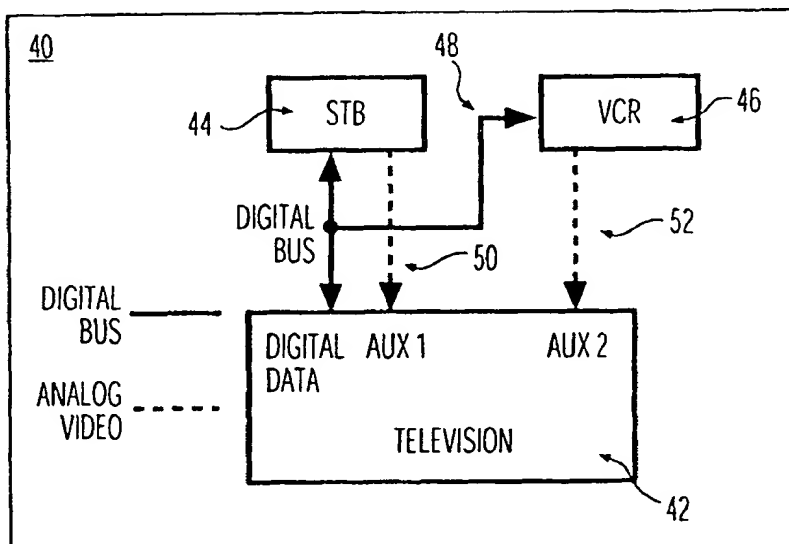
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>H04N 5/44</b>		A1	(11) International Publication Number: <b>WO 00/13408</b>
			(43) International Publication Date: 9 March 2000 (09.03.00)
(21) International Application Number: PCT/US99/19688 (22) International Filing Date: 26 August 1999 (26.08.99) (30) Priority Data: 60/097,916          26 August 1998 (26.08.98)          US (71) Applicant (for all designated States except US): THOMSON CONSUMER ELECTRONICS, INC. [US/US]; 10330 North Meridian Street, Indianapolis, IN 46290-1024 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): VIRAG, David, Emery [US/US]; 7485 Cherry Hill Drive, Indianapolis, IN 46254-9769 (US). POLIT, Peter, Paul [US/US]; 8309 Reef Court, Indianapolis, IN 46236-9593 (US). STAHL, Thomas, Anthony [US/US]; 7003 Stewart Court, Indianapolis, IN 46256-2261 (US). (74) Agents: TRIPOLI, Joseph, S. et al.; Thomson Multimedia Licensing Incorporated, P.O. Box 5312, Princeton, NJ 08543 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>	

(54) Title: A METHOD FOR AUTOMATICALLY DETERMINING THE CONFIGURATION OF A MULTI-INPUT VIDEO PROCESSING APPARATUS

## (57) Abstract

A method for automatically defining or learning the configuration of a television interconnected with a plurality of peripheral devices utilizes a digital control channel to define the analog interconnections. This method does not require the consumer to know the specific configuration of the system. The system functions properly whether peripheral devices are in the video chain path or not. This method enables a user to simply connect peripheral devices to any one of the multiple inputs of the video processing apparatus. The video processing apparatus employs a systematic process of (1) commanding each of said peripheral devices via a digital bus, such as an IEEE 1394 serial bus, to transmit a signal from its analog output, (2) monitoring the analog inputs of the video processing apparatus to determine which of the inputs receives the transmitted signal, and (3) constructing a map of the analog interconnectivity of each peripheral device connected to said video processing device.



*FOR THE PURPOSES OF INFORMATION ONLY*

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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EE	Estonia	LR	Liberia	SG	Singapore		

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/19688

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N5/44

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 843 468 A (SONY CORP) 20 May 1998 (1998-05-20) column 1, line 1 - line 49	1, 2, 9
A	column 5, line 4 - line 31; figures 1-11 ---	10-13
A	EP 0 766 462 A (SAMSUNG ELECTRONICS CO LTD) 2 April 1997 (1997-04-02) abstract; figure 5 ---	1, 10, 12
A	US 4 821 122 A (TESKEY JOHN F) 11 April 1989 (1989-04-11) cited in the application column 1, line 50 - column 2, line 47; figure 1 --- -/--	1, 10, 12



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

2 December 1999

Date of mailing of the international search report

08/12/1999

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk  
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Authorized officer

Fuchs, P

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/19688

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 996 597 A (DUFFIELD DAVID J) 26 February 1991 (1991-02-26) cited in the application column 1, line 1 -column 2, line 15 column 4, line 8 -column 6, line 62; figures 1,4-6 -----	1,10,12
A	US 5 592 234 A (GARDNER TIMOTHY J ET AL) 7 January 1997 (1997-01-07) -----	

# INTERNATIONAL SEARCH REPORT

information on patent family members

Intern. Patent Application No

PCT/US 99/19688

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0843468 A	20-05-1998	JP 10150611 A	02-06-1998
EP 0766462 A	02-04-1997	CN 1151656 A	11-06-1997
		JP 9130697 A	16-05-1997
		US 5926228 A	20-07-1999
US 4821122 A	11-04-1989	DE 3801523 A	04-08-1988
		JP 2579510 B	05-02-1997
		JP 63194479 A	11-08-1988
		JP 2891603 B	17-05-1999
		JP 5304637 A	16-11-1993
US 4996597 A	26-02-1991	CA 2010686 A	20-10-1990
		DE 69031767 D	15-01-1998
		DE 69031767 T	25-06-1998
		EP 0393664 A	24-10-1990
		JP 2295384 A	06-12-1990
		JP 2741278 B	15-04-1998
		JP 2891273 B	17-05-1999
		JP 5219454 A	27-08-1993
US 5592234 A	07-01-1997	EP 0746939 A	11-12-1996
		WO 9619895 A	27-06-1996
		JP 9509814 T	30-09-1997
		US 5621482 A	15-04-1997
		US 5748255 A	05-05-1998
		US RE35859 E	28-07-1998